BELLSOUTH TELECOMMUNICATIONS, INC.

DIRECT TESTIMONY OF ROBERT McKNIGHT

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 1997-239-C

DECEMBER 31, 2003

Q. PLEASE STATE YOUR NAME, OCCUPATION AND ADDRESS.

A. My name is Robert McKnight. I am a Director in the Finance Department of BellSouth Telecommunications, Inc. (hereinafter referred to as "BellSouth" or "the Company"). My area of responsibility relates to the development of economic costs. My business address is 3535 Colonnade Parkway, Birmingham, Alabama 35243.

Q. PLEASE STATE YOUR PROFESSIONAL EXPERIENCE AND EDUCATION RELATED TO THE ISSUES IN THIS PROCEEDING.

A. I joined South Central Bell in 1975 in the Investment and Cost Department where I was responsible for various types of cost studies. I also managed South Central Bell's Capital Recovery studies and had assignments in strategic planning and regulatory issues management. In 1988, I returned to the cost organization with the responsibility of managing the development of customer specific cost studies. My current responsibilities encompass directing the preparation of universal service cost studies and loop and interoffice unbundled network element cost studies. Additionally,

I oversee the execution of several fundamental models for central office investments, loop investments, and interoffice transport investments.

I attended Auburn University, graduating with a Bachelors of Science Degree in Economics. I also completed course work towards a Master of Science Degree in Economics from Auburn University. I have attended numerous Bellcore courses and internal and outside seminars relating to service cost studies and economic principles.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is two-fold: (1) to explain why Unbundled Network Element ("UNE") rates set by the Public Service Commission of South Carolina ("Commission") in Docket No. 2001-65-C are appropriate surrogates for BellSouth's intrastate switched access costs; and (2) to support the fact that the rates for intrastate switched access service in BellSouth's proposed tariff are above BellSouth's cost for these services. BellSouth witness Edward Matejick addresses these rates in his pre-filed direct testimony, and BellSouth witness Kathy Blake addresses policy issues related to BellSouth's tariff filing in her pre-filed direct testimony.

Q. WHAT COST INFORMATION IS BELLSOUTH USING IN THIS DOCKET FOR THE COST OF THE INTRASTATE SWITCHED ACCESS SERVICE THAT IS THE SUBJECT OF BELLSOUTH'S TARIFF FILING?

A. The costs presented in this docket are the UNE rates ordered by the Commission in Docket No. 2001-65-C. These UNE rates include any adjustments that the Commission deemed appropriate to the original UNE cost studies filed by BellSouth in that docket.

Q. WHY DID BELLSOUTH USE RATES FROM THE UNBUNDLED NETWORK ELEMENT DOCKET TO SUPPORT ITS TARIFF FILING?

A. BellSouth is using these UNE rates to show that the existing rates for intrastate switched access service are above their costs and, therefore, provide implicit support for universal service. BellSouth also is using these UNE rates to show that the proposed intrastate switched access rates in BellSouth's tariff cover their associated costs and, therefore, that these proposed rates are not set so low that they require subsidization.

BellSouth used existing UNE rates as cost support in this proceeding because this Commission has already reviewed these rates and adjusted them as it deemed necessary. As this Commission is well aware, cost studies involve numerous inputs and assumptions. Use of existing ordered UNE rates, which were supported by detailed cost studies and which have already been thoroughly reviewed by the Commission, provide a

"conservative" cost surrogate and price floor to make such a demonstration.

Q. WOULD THERE BE ANY DIFFERENCES BETWEEN COST STUDIES CONDUCTED TO SUPPORT INTRASTATE SWITCHED ACCESS VERSUS THE COST STUDIES THAT SUPPORT BELLSOUTH'S UNE RATES?

A. Yes, there would be some minor differences. If BellSouth were to conduct a switched access cost study, it typically would use the Total Service Long Run Incremental Cost ("TSLRIC") methodology, and TSLRIC differs somewhat from the cost methodology used to develop UNE rates. Thus, there would be some minor differences in both methodology and inputs if BellSouth had developed and used a TSLRIC study instead of relying on UNE rates as a surrogate. As I explain below, however, using UNE rates as a surrogate is a conservative approach because these rates for intrastate switched access service are higher than the TSLRIC of intrastate switched access.[1]

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[1] The most problematic aspect of the Total Element Long Run Incremental Cost ("TELRIC") methodology used to price UNEs is the requirement that costs be based on a hypothetical, least-cost, most-efficient network. This requirement significantly understates the incumbent local exchange carrier's ("ILEC's") loop costs, and it understates the costs of some other components of the network to a somewhat lesser extent. The switched access rate elements included in BellSouth's tariff filing do not include loops, rather they include switching and interoffice transport. Additionally, as explained later in my testimony, TSLRIC includes only the direct costs of providing a service, i.e. TSLRIC does not include any shared or common costs of the firm, and thus is not designed to recover all of a firm's costs. TELRIC, which is used to

As displayed in BellSouth's September 2, 2003 filing and as shown below, the rates for intrastate switched access in BellSouth's proposed tariff are still above the UNE rates for this service.

END OFFICE SWITCHING FUNCTION	UNE Rate	Proposed Tariffed Rate
(LS1/LS2), Per MOU	$0.0010519	$0.0021580
(LS3/LS4), Per MOU	$0.0010519	$0.0021480
INTEROFFICE TRANSPORT – DEDICATED – DS1		
DS1 Facility Termination	$77.14	$81.00
Per Mile	$0.34	$20.70
▪ Converted to Minutes of Use – assumes13,300 minutes per voice grade equivalent and 21 miles of transport.	$0.000264	$0.001620

Thus, since the proposed switched access rates in BellSouth's tariff filing are greater than these UNE rates, they necessarily are also greater than the TSLRIC of switched access.

Q. PLEASE BRIEFLY DESCRIBE THE TSLRIC METHODOLOGY.

A. Incremental costing technique is the foundation for TSLRIC and TELRIC methodologies. Incremental cost methodology is based on cost causation and thus, only considers costs directly caused by expanding production levels, or alternatively, costs saved by reducing production levels. For

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develop UNE rates, includes the wholesale portion of a firm's shared and common costs.

TSLRIC, incremental cost is calculated for the total volume of a *service*; hence the term Total *Service* Long Run Incremental Costs. TSLRIC methodology considers all volume sensitive costs (i.e., costs that change with a change in unit demand) and all volume insensitive costs (i.e., costs that do not change with a change in unit demand, but are required by the service[2]) directly caused by and associated with that service. In contrast, Long Run Incremental Cost ("LRIC") methodology only considers the volume sensitive costs associated with providing a service. LRIC methodology is generally used to establish the absolute "price floor", i.e., the minimum rate for the individual rate element. Since TSLRIC reflects all of the direct costs, i.e., both volume sensitive and volume insensitive costs, TSLRIC studies are the basis for testing for cross-subsidization. If rates for a service exceed the service's TSLRIC (both volume sensitive and volume insensitive costs directly caused by the service), then the service is not being subsidized by other services.

Furthermore, because TSLRIC considers both the service's volume sensitive and volume insensitive cost, it is either equal to (if there are no direct volume insensitive costs) or greater than LRIC. Therefore, if the switched access rates exceed TSLRIC costs, they also exceed LRIC costs.

[2] Generally BellSouth converts the volume insensitive costs to a "per unit" cost based on demand projections.

Q. HOW DOES THE TELRIC METHODOLOGY DIFFER FROM THE TSLRIC METHODOLOGY?

A. The TELRIC methodology was initially defined by the Federal Communications Commission ("FCC") in Paragraph 678 of the First Report and Order[3]

> "While we are adopting a version of the methodology commonly referred to as TSLRIC as the basis for pricing interconnection and unbundled elements, we are coining the term "total element long run incremental cost" (TELRIC) to describe our version of this methodology."

Furthermore, in Paragraph 682 of the First Report and Order, the FCC states:

> "Directly attributable forward-looking costs also include the incremental costs of shared facilities and operations.... More broadly, certain shared costs that have conventionally been treated as common costs (or overheads) shall be directly attributed to the individual elements to the greatest extent possible."

It is important to note that even though the fundamental cost methodologies (i.e., TSLRIC and TELRIC methodologies) are similar (as the FCC noted in Paragraph 678 of the First Report and Order), it is the additional constraints currently mandated by the FCC that the incumbent local exchange carriers ("ILECs") object to with respect to TELRIC-based

[3] The FCC has recently issued a Notice of Proposed Ruling Making ("NPRM") concerning TELRIC methodology. BellSouth filed comments on December 16, 2003.

rates. The use of a hypothetical network and most efficient, least-cost provider requirements have distorted the TELRIC results and normally understate the true forward-looking costs of the ILEC.

These distortions, however, are most evident in the calculation of unbundled loop elements, and they are less evident in the switching and transport network elements that make up switched access. In fact, if BellSouth had conducted a TSLRIC study for switched access, the underlying assumptions with respect to forward-looking equipment and architectures would have been consistent with those used in the TELRIC studies for switching and transport UNEs. Furthermore, in its Order in Docket No. 2001-65-C, the Commission adopted BellSouth's proposed switching and transport cost results without modification. Additionally, the Commission did not adjust BellSouth's proposed cost of capital and depreciation inputs. If a TSLRIC study had been conducted, these same parameters would have been used.

Q. AS YOU NOTED ABOVE, THE FCC PROVIDED FOR THE INCLUSION OF SHARED AND COMMON (OVERHEAD) COSTS IN TELRIC CALCULATIONS. ARE THESE TYPES OF COSTS APPROPRIATE FOR TSLRIC STUDIES?

A. No. In a TSLRIC study, all shared and common costs are omitted from cost results while a reasonable portion of these costs are included in TELRIC studies. Thus, all else being held constant, the allowance of

shared and common costs under the TELRIC cost methodology increases costs above those that would have been obtained from a comparable TSLRIC switched access study.

Q. ARE OTHER INPUTS AND ASSUMPTIONS USED IN THE TELRIC STUDIES FOR THESE NETWORK ELEMENTS THE SAME AS THOSE THAT WOULD BE USED IN A TSLRIC STUDY FOR SWITCHED ACCESS?

A. Yes, with the exception of minor differences that would not increase the TSLRIC above the UNE rates that BellSouth is using in this proceeding. As I explained earlier, the major cost drivers for the network components required to provide switched access are identical in a TSLRIC and a TELRIC study. However, there are some minor differences between a TSLRIC study for switched access and a TELRIC study for local UNEs. These differences would affect the switching cost component of switched access.

Those differences are associated with local call processing. Therefore, the input characteristics in the UNE cost study used to derive the end office switching per minute of use cost would differ slightly for switched access. However, I emphasize that the main cost drivers for end office switching

are the fundamental unit investments[4], which are identical in switching TSLRIC and TELRIC studies.

The table below lists the cost inputs that would vary between UNEs and the TSLRIC of intrastate switched access.

	UNE	TSLRIC (SWITCHED ACCESS)
Distribution of Calls		
Percent Intra-office Calls (O+T)	33.4%	0.0%
Percent Inter-office Calls	66.6%	100.0%
Busy Hour Conversion Factors		
Busy Hour to Full Day Ratio	8.75%	8.21%
Call Characteristics		
Call Completion Ratio	70.9%	71.9%
Average Non-Conversation Time per Call (Seconds)	13.28	19.06

BellSouth has conducted sensitivity analyses with these input differences to determine their impact on costs. If the UNE costs had been revised to include the switched access-specific inputs, holding all else constant, the results (including shared and common costs) would have been lower than the UNE rates used; $.00086 compared to $.00105.

[4] The Switching Cost Information System/ Model Office ("SCIS/MO") produced the unit investments associated with the end office switch. Fundamental studies were conducted to identify the Signaling System Seven ("SS7") investments required for call processing. These supporting studies were filed in Docket No. 2001-65-C.

Q. YOU MENTIONED DIFFERENCES IN CALL PROCESSING ASSUMPTIONS BETWEEN SWITCHED ACCESS AND LOCAL ACCESS THAT WOULD SLIGHTLY AFFECT SWITCHING COSTS. ARE THERE SIMILAR DIFFERENCES IN ASSUMPTIONS RELATED TO THE TRANSPORT PORTION OF SWITCHED ACCESS?

A. No. The characteristics of the transport of traffic from one switch to another in BellSouth's network would not differ whether it is local traffic or switched access traffic. Thus, with the exception of shared and common cost allocation in the UNE rates (which increases cost), the results would be the same for transport UNEs as for the transport portion of switched access.

Q. HOW DO THE COST METHODOLOGIES DISCUSSED ABOVE (LRIC, TSLRIC AND TELRIC) COMPARE TO THE COST METHODOLOGY USED TO ESTABLISH THE UNIVERSAL SERVICE FUND IN SOUTH CAROLINA?

A. In Order 98-322, the Commission selected the Benchmark Cost Proxy Model ("BCPM") Release 3.1 to determine the costs for use in establishing the appropriate size of the Universal Service Fund for BellSouth's territory in South Carolina. In that Order, the Commission modified certain BCPM input values proposed by BellSouth. As explained by BellSouth witness Kathy Blake, cost results based on the Commission-adjusted inputs were used to determine the size of the BellSouth-specific portion of the State Universal Service Fund size.

From a cost methodology perspective, the BCPM approach is similar in concept to that of a TELRIC methodology. The BCPM develops the network design for the most efficient service provider taking the existing wire center locations as given. The cost results reflect the long run, forward-looking incremental costs associated with providing basic local service.

Q. WHY WAS THE BCPM 3.1 NOT USED TO DETERMINE COSTS FOR SWITCHED ACCESS IN THIS PROCEEDING?

A. The BCPM 3.1 was not designed to determine switched access service costs. The BCPM 3.1 was specifically built to calculate the cost of providing basic local service on a per line basis for the purpose of determining the size of the Universal Service Fund. It does not compute the cost of other retail services, wholesale services such as switched access service, or unbundled network elements. More specifically, it cannot produce the cost of the switched access rate elements – end office switching per minute of use and DS1 dedicated interoffice transport -- under consideration in this proceeding.

Q. WOULD YOU PLEASE SUMMARIZE YOUR TESTIMONY?

A. The UNE rates presented in this proceeding, i.e., end office switching function and dedicated DS1 transport, are for the same components of the network required to provide switched access service. The intrastate switched access rates in BellSouth's proposed tariff are greater than the Commission-approved UNE rates for these network components. This necessarily means that the rates in BellSouth's proposed tariff are above the LRIC and the TSLRIC of switched access service.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

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BEFORE
THE PUBLIC SERVICE COMMISSION OF
SOUTH CAROLINA
DOCKET NO. 97-239-C

IN RE: Proceeding to Establish Guidelines)
for an Intrastate Universal Service Fund)
)

This is to certify that the undersigned, Nyla M. Laney, is employed by the Legal Department for BellSouth Telecommunications, Inc. and that she has caused the Direct Testimony of Robert McKnight in the foregoing matter to be served upon the person(s) named below this 31st day of December, 2003, by placing copies of same in the United States Mail, postage prepaid, addressed as follows:

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